

Current Lead and Copper Rule Requirements and Upcoming Rule Changes (LCRR, Sampling, & LCRI)

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NCRWA Workshop

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Overview

- **LCRR – Current Requirements**
  - Initial Service Line Inventory
  - Service Line Material Notices
  - Lead Action Level Exceedance (ALE) Tier 1 (24-Hour) Public Notification
  - Revised Lead Health Effects Language
- **Sampling Update**
  - Common Issues
  - Sampling Procedures
  - Lab Submission Requirements
  - Sample Pool
- **Lead and Copper Rule Improvements (LCRI) – Upcoming Changes**

LCRR Review





NORTH CAROLINA
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DEQ

Lead and Copper Rule Revisions (LCRR)

- Original compliance date for the LCRR was January 16, 2024.
- The LCRR compliance date was moved to October 16, 2024 as EPA reviewed and “improved” the rule.
- Due to modifications in the LCRI, only four LCRR requirements went into effect on the October 16, 2024 compliance date. These included:
  - Initial Service Line Inventory
  - Service Line Material Notices
  - Lead Action Level Exceedance (ALE) Tier 1 (24-Hour) Public Notification
  - Revised Lead Health Effects Language

Initial Service Line Inventory

- The LCRR required systems subject to the Lead and Copper Rule develop an inventory of all service line connections, both system-owned and customer-owned, by the compliance date of October 16, 2024.

- Based on the service line material of both the system-owned and customer-owned portions of the service line, each service was classified as one of four material types, by rule:
  - Lead
  - Galvanized Requiring Replacement (GRR)
  - Unknown Material
  - Non-Lead

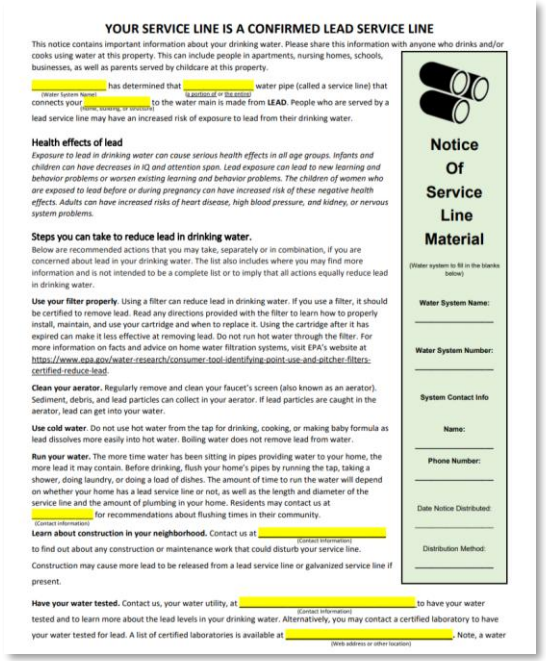
SLI Information Webpage

SLI Submission Portal

- Water systems in NC completed an inventory template and submitted their inventory through the Service Line Inventory Submission Portal application.

Service Line Material Notices

- Service line material notices must be distributed annually, so replacing lead or GRR services lines, and/or confirming the material of unknown material services lines will reduce the number of notices required to be issued.
- Service line material notice templates are available on the Public Water Supply Section's website
- Notices should be submitted to the Public Water Supply Section through our online ECERT application



YOUR SERVICE LINE IS A CONFIRMED LEAD SERVICE LINE

This notice contains important information about your drinking water. Please share this information with anyone who drinks and/or cooks using water at this property. This can include people in apartments, nursing homes, schools, businesses, as well as parents served by childcare at this property.

_____ has determined that _____ water pipe (called a service line) that connects your _____ to the water main is made from **LEAD**. People who are served by a lead service line may have an increased risk of exposure to lead from their drinking water.

Health effects of lead

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or worsen existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these negative health effects. Adults can have increased risks of heart disease, high blood pressure, and kidney, or nervous system problems.

Steps you can take to reduce lead in drinking water.

Below are recommended actions that you may take, separately or in combination, if you are concerned about lead in your drinking water. The list also includes where you may find more information and is not intended to be a complete list or to imply that all actions equally reduce lead in drinking water.

Use your filter properly. Using a filter can reduce lead in drinking water. If you use a filter, it should be certified to remove lead. Read any directions provided with the filter to learn how to properly install, maintain, and use your cartridge and when to replace it. Using the cartridge after it has expired can make it less effective at removing lead. Do not run hot water through the filter. For more information on facts and advice on home water filtration systems, visit EPA's website at https://www.epa.gov/water-research/consumer-tool-identifying-point-use-and-pitcher-filters-certified-reduce-lead.

Clean your aerator. Regularly remove and clean your faucet's screen (also known as an aerator). Sediment, debris, and lead particles can collect in your aerator. If lead particles are caught in the aerator, lead can get into your water.

Use cold water. Do not use hot water from the tap for drinking, cooking, or making baby formula as lead dissolves more easily into hot water. Boiling water does not remove lead from water.

Run your water. The more time water has been sitting in pipes providing water to your home, the more lead it may contain. Before drinking, flush your home's pipes by running the tap, taking a shower, doing laundry, or doing a load of dishes. The amount of time to run the water will depend on whether your home has a lead service line or not, as well as the length and diameter of the service line and the amount of plumbing in your home. Residents may contact us at _____ for recommendations about flushing times in their community.

Learn about construction in your neighborhood. Contact us at _____ to find out about any construction or maintenance work that could disturb your service line.

Construction may cause more lead to be released from a lead service line or galvanized service line if present.

Have your water tested. Contact us, your water utility, at _____ to have your water tested and to learn more about the lead levels in your drinking water. Alternatively, you may contact a certified laboratory to have your water tested for lead. A list of certified laboratories is available at _____. Note, a water

Notice Of Service Line Material

(Water system to fill in the blanks below)

Water System Name:

Water System Number:

System Contact Info

Name:

Phone Number:

Date Notice Distributed:

Distribution Method:

SLI Information Webpage

eCert

- Water systems with no lead, GRR, or unknown material services lines do not have to provide notices to customers, but they must still either make their inventory publicly accessible or provide a written statement declaring that the system is entirely composed of non-lead service lines and include a general description of the applicable sources used to make that determination.

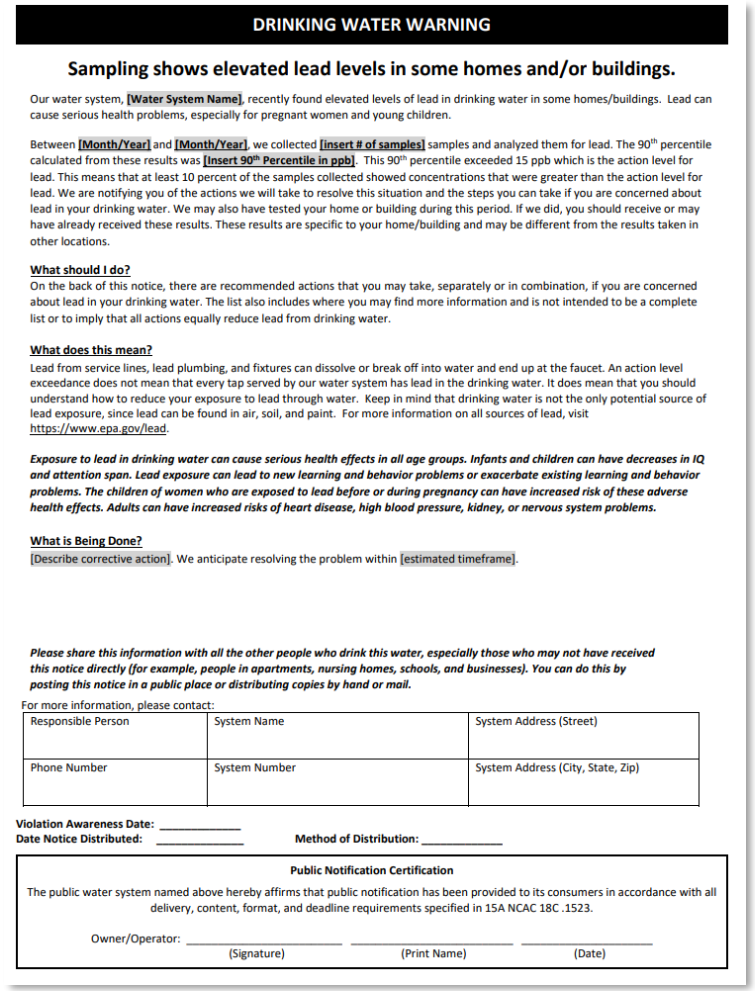
NORTH CAROLINA Department of Environmental Quality

Lead ALE Tier 1 Public Notification

- Now that the LCRR compliance date of October 16, 2024 has passed, water systems are now required to issue a Tier 1 Public Notification to customers when the 90th percentile lead level exceeds the lead action level of 0.015 mg/L (15 ppb).

- **Timing of Notification**
  - Distributed to customers as soon as practical but no later than 24 hours of after the system learns of the lead action level exceedance.
- **Delivery Method**
  - The notice can be delivered to customers by broadcast media (radio/television), posting in conspicuous locations through the service areas, and/or hand delivery to all persons served by the system.

Lead ALE Tier 1 Public Notification



DRINKING WATER WARNING

Sampling shows elevated lead levels in some homes and/or buildings.

Our water system, **[Water System Name]**, recently found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children.

Between **[Month/Year]** and **[Month/Year]**, we collected **[insert # of samples]** samples and analyzed them for lead. The 90th percentile calculated from these results was **[Insert 90th Percentile in ppb]**. This 90th percentile exceeded 15 ppb which is the action level for lead. This means that at least 10 percent of the samples collected showed concentrations that were greater than the action level for lead. We are notifying you of the actions we will take to resolve this situation and the steps you can take if you are concerned about lead in your drinking water. We may also have tested your home or building during this period. If we did, you should receive or may have already received these results. These results are specific to your home/building and may be different from the results taken in other locations.

What should I do?
On the back of this notice, there are recommended actions that you may take, separately or in combination, if you are concerned about lead in your drinking water. The list also includes where you may find more information and is not intended to be a complete list or to imply that all actions equally reduce lead from drinking water.

What does this mean?
Lead from service lines, lead plumbing, and fixtures can dissolve or break off into water and end up at the faucet. An action level exceedance does not mean that every tap served by our water system has lead in the drinking water. It does mean that you should understand how to reduce your exposure to lead through water. Keep in mind that drinking water is not the only potential source of lead exposure, since lead can be found in air, soil, and paint. For more information on all sources of lead, visit https://www.epa.gov/lead.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

What is Being Done?
[Describe corrective action]. We anticipate resolving the problem within [estimated timeframe].

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact:

Responsible Person	System Name	System Address (Street)
Phone Number	System Number	System Address (City, State, Zip)

Violation Awareness Date: _____
Date Notice Distributed: _____ **Method of Distribution:** _____

Public Notification Certification

The public water system named above hereby affirms that public notification has been provided to its consumers in accordance with all delivery, content, format, and deadline requirements specified in 15A NCAC 18C .1523.

Owner/Operator: _____ _____ _____
(Signature) (Print Name) (Date)

The Lead Action Level Exceedance Tier 1 Public Notice template is available on the Public Water Supply Section's website

Lead & Copper Webpage

eCert

After delivering to customers, certified notice should be submitted via email to both pwss.lcr@deq.nc.gov and LeadALE@EPA.gov. A new module is available in the Federal Special Public Notice Module on our web-based ECERT application for submission of these lead action level exceedance public notices.

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Revised Lead Health Effects Language

Lead Health Effects Language Under the Lead and Copper Rule (LCR)

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Lead Health Effects Language Under the Lead and Copper Rule Revisions (LCRR)

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

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Sampling Updates





Reason for Rejections/Invalidations

1. Improper Sampling Procedure
2. Missing or incorrect information
3. Site not in sample pool on file
   - Data Acquisition Portal: https://www.ncwater.org/?page=679
   - Select more sampling pool sites than the minimum standard number required in the event that sites are inaccessible, samples are invalidated, or a sites no longer meets EPA criteria.

Sampling Procedure

STEP 1: Planning to sample

Your water system will deliver the empty sample bottle on:

_____ _____
Date Time

and pick up the filled sample bottle on:

_____ _____
Date Time

STEP 2: Before you sample



Do <u>not</u> use <u>any</u> water throughout the house for ***at least six hours*** before you take the sample.

Do <u>not</u> flush the line or remove any part of your sink (such as an aerator), even if you have done this to collect samples in the past.

STEP 3: Taking the sample



Place the open bottle under the tap in the kitchen (or bathroom) and turn on the cold water. Turn it off when the bottle is filled up to the 1,000-mL line.

Find a tap where the water does not flow though a filter or water softener. If you have a whole-house softener, do <u>not</u> take a sample, and immediately inform your water system.

STEP 4: After you sample

Complete the information below the dotted line and give it to your water system along with the filled bottle.

Your water system will let you know your results within 30 days, or within 1-2 working days if the lead and/or copper concentrations at your location are higher than the regulatory action levels.



NORTH CAROLINA Department of Environmental Quality DEQ

Sample Information: Lead & Copper

Sample Information	
CMDP Field	**Information Required**
Water System	Water System ID with no spaces or dashes (i.e. NC1234567)
Facility	Three-digit facility ID (should be D01 for tap samples)
Sampling Point	Three-digit sampling point ID (should be LCR for tap samples)
Sampling Location	For tap samples, the street address and city reported on the lab form. For source samples, information under "Location where collected"
Sample ID	Sample ID assigned by laboratory
Collection Date	Date the sample was collected
Collection Time	Time the sample was collected (in 24-hr format)
Sample Received Date	Date the sample was received by the laboratory
Laboratory ID	Five-digit laboratory ID
Sample Type	Routine
Sample Volume	*Optional* volume of sample collected
Sample Collector Name	Name reported as "collected by" on the lab form ("Client" or "Homeowner" is not acceptable)
Comment	For tap samples, the sample comment must include the location code, tap location, Tier, "Residence" if the client checked the box related to residences, "School/ Daycare" if the client checked the box related to schools/daycares, and "Lead Service Line" if the client checked the box related to lead service lines. An additional comment may also be added. The comment must be included in the format below with fields left null if not applicable, but the order and number of tildes should not be altered: Location Code~Tap Location~Tier~~ Additional Comment~Residence~School/Daycare~Lead Service Line (example: 123~Kitchen Sink~1~~~Residence~~Lead Service Line)

Sample Information: Lead & Copper

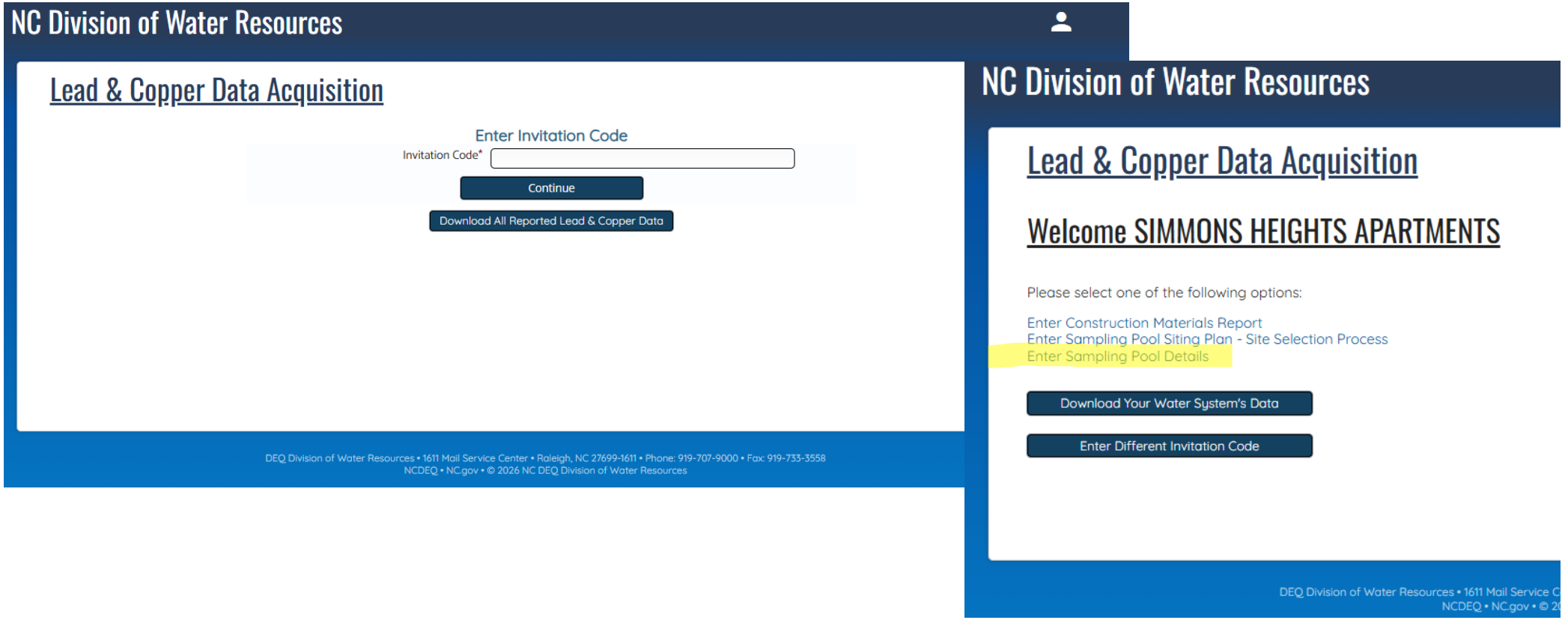
Sample Type:	Compliance (Tap Sample)	Compliance (Source)	Special/Non-compliance	
Collection Date and Time:				
Collected By (please print):				
For Tap Samples:	Residence	School/daycare	Lead Service Line	
	Tap Location Information:	Tier	Location code	Address
	Location:	Residential	Non-residential	Other (must specify)
For Source Samples:				
	Source Location Information:	Facility ID No:	Sampling Point ID:	Location where collected:

Tiering

Table 1-3 Tier Structure	
If you are a CWS	**If you are a NTNCWS**
Tier 1 sampling sites are single family structures: • with copper pipes with lead solder installed between 1983 and 1988, or • contain lead pipes; and/or • served by a lead service line. (Note: If multiple-family residences comprise at least 20% of the structures served by a water system, they can be counted as Tier 1 sites) **Tier 2** sampling sites consist of buildings (i.e. apartment buildings, schools, hospitals): • with copper pipes with lead solder installed between 1983 and 1988, or • contain lead pipes; and/or • served by a lead service line. **Tier 3** sampling sites are single family structures with copper pipes having lead solder installed before 1983.	**Tier 1** sampling sites consist of buildings: • with copper pipes with lead solder installed between 1983 and 1988, or • contain lead pipes; and/or • served by a lead service line. **Tier 2** sampling sites consist of buildings with copper pipes with lead solder installed before 1983. If additional sites are needed the system shall use representative sites throughout the distribution system. A representative site is a site in which the plumbing materials used at the site would be commonly found at other sites served by the water system. A non-transient noncommunity public water system with insufficient Tier 1 and Tier 2 sites must complete its sampling pool with "other" representative sites throughout the distribution system. A representative site is a site in which the plumbing materials used at the site would be commonly found at other sites served by the water system.
Note: The use of Lead solder was banned in all homes and buildings connected to a public water system in June 1988	

Current Sample Pool

- https://www.ncwater.org/?page=679



Sampling Pool Location Details

Fields marked with a * are required.

Notes: To help you properly complete this form, example entries are shown for this form on our website at http://deq.nc.gov/about/divisions/water-resources/drinking-water/compliance-services#LCR

For water systems with Lead Service Lines (LSLs), half of all sites sampled must contain Lead Service Lines (LSLs) as per §141.86(a)(8).

Location Code *

Physical Address (Street and City for CWS) or Physical Location (for NTNC) *

Year Built *

Plumbing Materials in Structure *

Lead Service Lines on System's Side? * (water main to customer's meter) ○ Yes ○ No

Lead Service Lines on Customer's Side? * (meter to customer's building) ○ Yes ○ No

Tier *

Tier Designation Justification *

Date Site Added or Deleted (mm/dd/yyyy)*

Site Added or Deleted? * ○ Added ○ Deleted

Comments Explaining Change *

Save Location

Return To Sampling Pool Summary (data not saved)

Lead and Copper Rule Improvements (LCRI)



Lead and Copper Rule Improvements (LCRI)

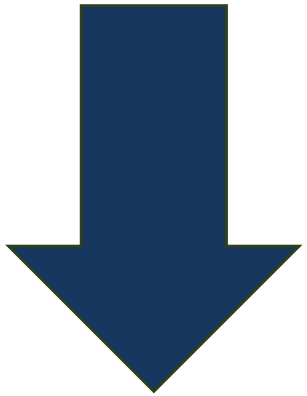
- The final LCRI was published to the Federal Register on October 30, 2024.
- Compliance date for the LCRI is November 1, 2027.
- A general overview of the LCRI's requirements include:

- Lead Action Level Lowered
- Revised Tiering Criteria
- Sampling Plan and Inventory Validation
- Monitoring Requirements and 90th Percentile Changes
- Corrosion Control Treatment (CCT) Changes
- Water Quality Parameter (WQP) Monitoring Changes
- Distribution System and Site Assessment (DSSA) Changes
- Small System Compliance Flexibility
- Public Education and Outreach Changes
- Baseline Service Line Inventory
- Lead Service Line Replacement Plans
- School and Child Care Facility Sampling

Lead Action Level Lowered

- The final LCRI lowers the 90th percentile lead action level from 0.015 mg/L (15 ppb) under the current rule to **0.010 mg/L (10 ppb)** under the final rule.
- Compliance date for the new lead action level is November 1, 2027.
- The 90th percentile copper action level remains at 1.3 mg/L (1.3 ppm) under the final rule.

15 ppb



10 ppb

Revised Tiering Criteria

The tiering criteria for sample sites for Non-Transient Non-Community Water Systems (NTNCWS) and Community Water Systems (CWS) have been combined in the final LCRI:
Tier 1 – single family homes with premise plumbing made of lead and/or served by a lead service line.
Tier 2 – buildings, including multifamily homes, with premise plumbing made of lead and/or served by a lead service line.
Tier 3 – include single family homes that are either: • Sites served by a lead connectors • Sites served by a galvanized service line ever downstream of an LSL or lead connector, or • Sites with galvanized premise plumbing ever downstream of an LSL or lead connector.
Tier 4 – sites containing copper pipes with lead solder installed before the state lead ban (March 1987).
Tier 5 – sites that are representative of locations throughout the distribution system.

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Revised Tiering Criteria

Tier Classification	Material Classification	CWS Tier	NTNC Tier
Single family homes	with premise plumbing made of lead	1	NA
	served by a lead service line	1	NA
Multi-family homes	with premise plumbing made of lead	2	2
	served by a lead service line	2	2
Buildings	with premise plumbing made of lead	2	2
	served by a lead service line	2	2
Single family homes	served by a lead connector	3	NA
	served by a galvanized service line ever downstream of a lead service line	3	NA
	served by a galvanized premise plumbing ever downstream of a lead connector	3	NA
Sites	served by a lead connector	NA	3
	served by a galvanized service line ever downstream of a lead service line	NA	3
	containing galvanized premise plumbing ever downstream of a lead service line	NA	3
Single-family homes	containing copper pipes with lead solder installed before the state lead ban (March 1987)	4	NA
Sites	containing copper pipes with lead solder installed before the state lead ban (March 1987)	NA	4
Sites	that are representative of locations throughout the distribution system	5	5

Site Sampling Plan (Sampling Pool)

Lead and Copper Tap Sampling		
System Size (number of people served)	Standard number of sites	Reduced number of sites
≤100	5	5
101 - 500	10	5
501 – 3,300	20	10
3,301 – 10,000	40	20
10,001 – 100,000	60	30
>100,000	100	50

- Tap sample site locations for lead and copper sampling
  - Selected from the highest tier
  - Same timeframe for monitoring:
    - January to June and July to December (6-month monitoring)
    - June – September (Annual and 3-year monitoring)
- Tap sample sites for Water Quality Parameter (WQP) monitoring
  - Entry point and distribution system locations
    - Distribution system locations can be different or the same as lead and copper tap sampling sites

WQP Sampling		
System size (number of people served)	Standard number of sites	Reduced number of sites
≤100	1	1
101 – 500	1	1
501 - 3,300	2	2
3,301 - 10,000	3	3
10,001 -100,000	10	7
>100,000	25	10

Non-Lead Inventory Validation

Step 1: Identify the validation pool

- All non-lead service lines except:
  - Those installed after Federal, State, or local lead ban
  - Those visually inspected at a minimum of two points on the pipe exterior
  - Those previously replaced

Step 2: Determine the minimum number of validations

Step 3: Randomly select service lines to validate

- Random number generator or lottery method

Step 4: Validate the service line material through two-point visual inspection

Step 5: Submit results

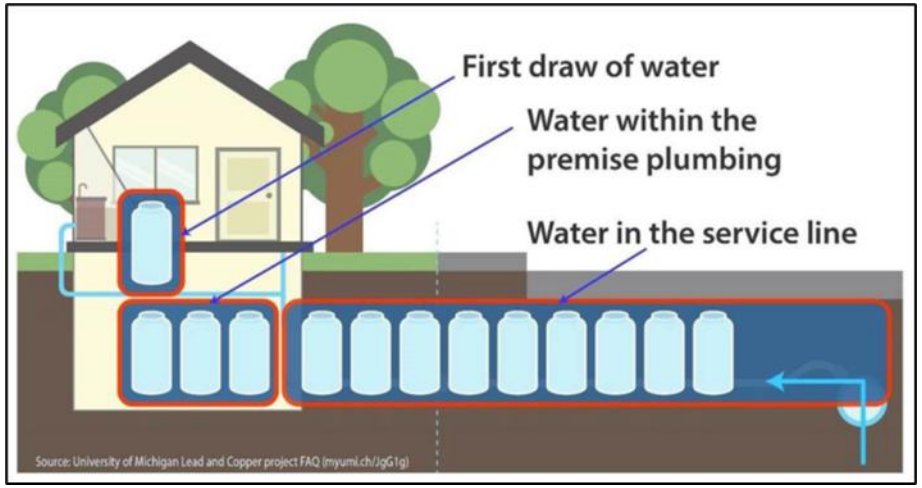
- List of locations of any non-lead service lines identified to be lead or GRR
- Methods used

Size of Validation Pool	Number of Validations Required
<1,500	20% of validation pool
1,500 to 2,000	322
2,001 to 3,000	341
3,001 to 4,000	351
4,001 to 6,000	361
6,001 to 10,000	371
10,001 to 50,000	381
>50,000	384

Monitoring Requirements

Water Quality Parameter Monitoring

- All large and medium water systems with corrosion control treatment (unless deemed optimized) and all small and medium water systems that exceed the lead or copper action level must sample and monitor water quality parameters in addition to lead and copper.
- Sites that are selected for this sampling can be the same or different from the tap sampling sites chosen for lead and copper, but they must be included in the site sample plan.
- Samples to be collected at distribution taps (representing water quality throughout the distribution system) and entry point(s) to the distribution system.
- Parameters analyzed in samples: pH, alkalinity, orthophosphate (if used), silica (if used) and any additional parameters specified by the State.



Monitoring Requirements

Monitoring Schedules

- Systems with known lead and/or GRR service lines in their inventory on November 1, 2027, must resume a standard monitoring schedule (every 6 months).
  - With the exception of systems that meet certain tap sampling requirements before the compliance date.
- Systems with no lead or GRR service lines in their inventory on November 1, 2027, can remain on reduced monitoring and must start standard monitoring if they identify a lead or GRR service line in the future.
- Thereafter, the monitoring schedule is based on the 90th percentile for lead and copper. Systems may retain or qualify for reduced monitoring based on the number of consecutive tap monitoring periods:
  - 90th percentile ≤ action level for 2 consecutive 6-month periods: Annual monitoring at standard number of sites for lead and reduced number of sites for copper.
  - 90th percentile < practical quantitation limit (PQL) for 2 consecutive periods: Triennial monitoring at the reduced number of sites for both lead and copper.

Monitoring Requirements



- Still a 1-liter sample after at least 6 hours of stagnation.
- Residential housing samples must still be collected from a kitchen or bathroom tap, and non-residential samples must still be collected from a tap typically used for consumption.
- 1st and 5th Liter Samples
  - For **ALL** sites, the 1st liter sample must be analyzed for lead and copper.
  - For **Tier 1 and 2 sites only**, a 5th liter sample must also be analyzed for lead (higher value used for 90th percentile calculation).

Monitoring Requirements

- Requirement for replacement sampling sites to be selected within reasonable proximity has been removed.

- Clarifies when sites are considered no longer available for sampling after customer refusal or nonresponse after two outreach attempts.
  - Customer refusal or nonresponse numbers must be submitted and certified by the State.

90th Percentile Calculation

- Calculation for systems with **sufficient** Tier 1 and 2 sites to meet the minimum number of required sample sites.
  - For **lead**, use the higher result from the 1st or 5th liter for each site. Calculate the 90th percentile as normal.
  - For **copper**, use the 1st liter result for all sites and calculate the 90th percentile as normal.
  - Cannot use any samples collected from Tier 3, 4, or 5 sites in this calculation.
- Calculation for systems with **insufficient** Tier 1 and 2 sites to meet the minimum number of required sample sites.
  - For **lead**, use the higher result from the 1st or 5th liter for each Tier 1 and 2 site and the highest samples from Tier 3, 4, or 5 until minimum is met. Calculate the 90th percentile.
  - For **copper**, use all 1st liter samples from Tier 1 and 2 sites first, then highest samples from Tier 3, 4, or 5 until minimum is met. Calculate the 90th percentile.
  - Any remaining Tier 3, 4, or 5 samples cannot be included in the 90th percentile calculations.
- For systems with only Tier 3, 4, or 5 sites, all lead and copper samples must be included in the 90th percentile calculation.
- For systems with fewer than five samples, the highest concentration is considered the 90th percentile.

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Corrosion Control Treatment (CCT)

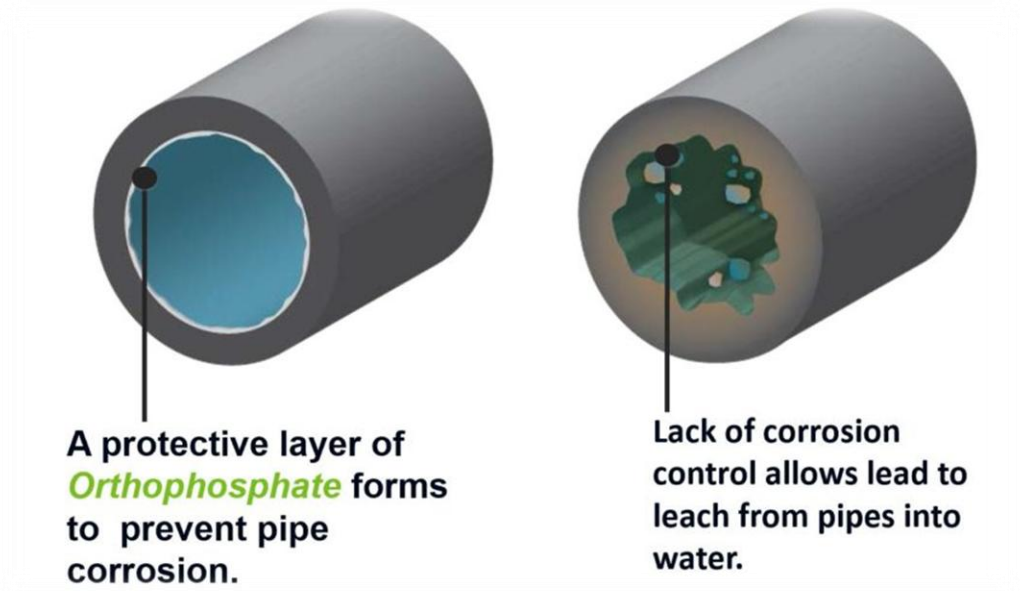
For Systems that Exceed the 90th Percentile Lead Action Level (0.010 mg/L or 10 ppb)

- Without CCT
  - Must install CCT regardless of subsequent 90th percentile levels if CCT installation has started.
- With Optimized Corrosion Control Treatment (OCCT)
  - Systems with OCCT and with lead and/or GRR service lines and are meeting Optimal Water Quality Parameters (OWQPs) need only re-optimize OCCT once after the compliance date.
  - Systems with OCCT that exceed the 90th percentile lead action level after removing all lead and/or GRR service lines will need to re-optimize again.
  - Systems may be required to re-optimize if required by the State at any time, including from a modification of a State treatment determination of OCCT or upon adding a new source or long-term treatment change.

NORTH CAROLINA DEQ Department of Environmental Quality

Corrosion Control Treatment (CCT)

- Systems with lead and/or GRR service lines can defer installing or re-optimizing OCCT if they replace 100% of their lead and GRR service lines within 5 years or less from the date they are triggered into CCT steps (must maintain CCT during 5-year period).
- Calcium carbonate stabilization option for CCT removed.
- Phosphate inhibitor must be orthophosphate.
- Identifies systems that need to conduct a harvested pipe rig study.
    - Large or medium systems with lead service lines and exceed the 90th percentile lead action level must harvest lead service lines from their distribution system and construct a flow through pipe rig, operating the rig with finished water.
    - After completing the pipe rig study, the system must recommend OCCT to the State based on the results of the study.



Water Quality Parameter (WQP) Monitoring

- Systems with CCT (unless deemed optimized) serving > 10,000 persons must conduct regular WQP monitoring at entry points and within the distribution system.
- Systems serving ≤ 10,000 persons and systems without CCT serving > 10,000 persons but ≤ 50,000 persons that exceed the lead and/or copper action level(s) must conduct WQP monitoring until they no longer exceed lead and/or copper action level(s) for 2 consecutive 6-month monitoring periods.
- Systems without CCT serving > 10,000 persons but ≤ 50,000 persons that exceed the lead action level that are required to install CCT must continue to conduct WQP monitoring.

Distribution System and Site Assessment (DSSA)

- Changes the name from “Find-and-Fix” to “Distribution System and Site Assessment” to describe this requirement more precisely.
- Requirements for systems with individual tap samples > 0.010 mg/L lead:
  - Conduct WQP monitoring at or near the site > 0.010 mg/L.
  - Collect tap sample at the same tap sample site within 30 days.
    - For lead service lines, collect any liter or sample volume.
  - Perform needed corrective action.
  - Document customer refusal or non-response after 2 attempts.
  - Provide information to local and State health officials.
- Clarifies that the distribution system sample location must be within a half mile radius of each site with a result > 0.010 mg/L.
- Water systems without CCT are not required to collect WQP samples for the DSSA CCT assessment.

Small System Compliance Flexibility

- Allows CWSs serving ≤ 3,300 persons and all NTNCWSs with 90th percentile levels > lead action level and ≤ copper action level to choose the following actions in lieu of CCT requirements to address lead with State approval:
- Choose a compliance option: (1) provision and maintenance of Point of Use (POU) devices or (2) replacement of all lead-bearing plumbing materials.
- Removes the compliance option under LCRR to conduct LSLR in 15 years. Otherwise, the system must meet the following CCT requirements:
- With CCT: Collect WQPs and evaluate compliance options and OCCT.
- No CCT: Evaluate compliance options and CCT.

Public Education and Outreach

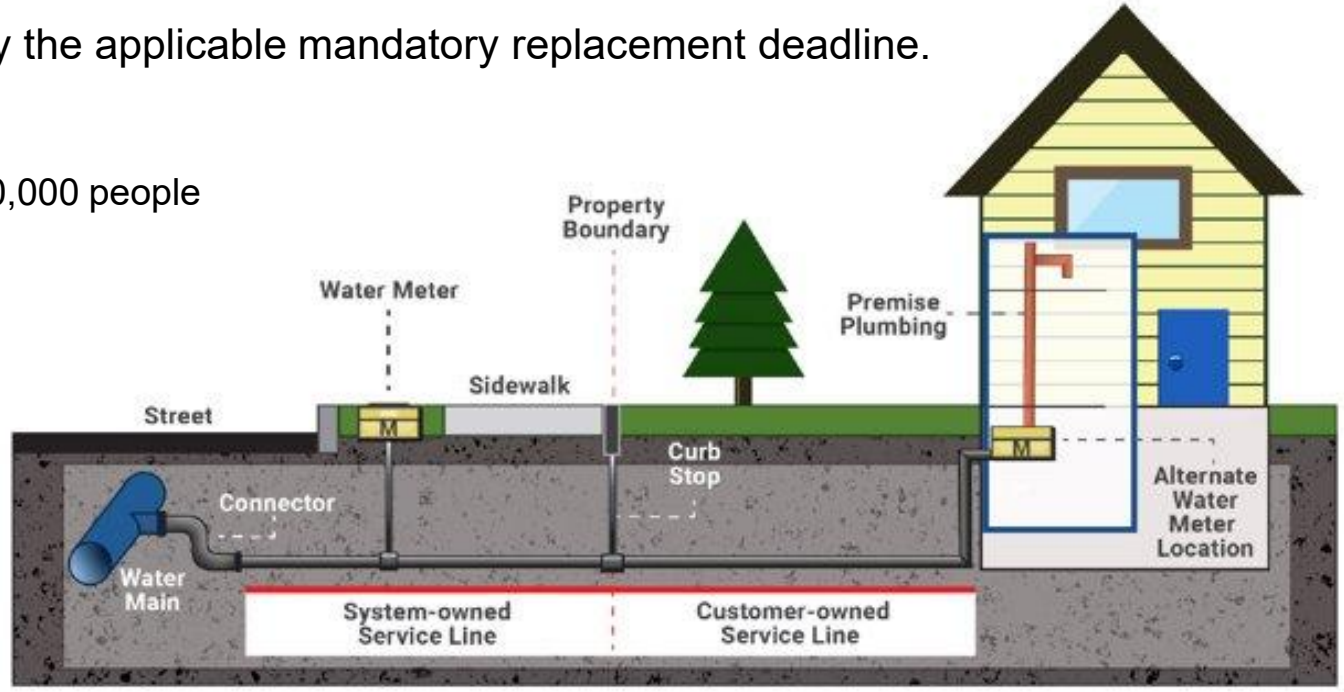
- Water systems must deliver consumer notice of lead and copper tap sampling results to consumers whenever their tap is sampled as soon as practicable but no later than 3 business days after receiving the results, regardless of the level.

- Water systems with multiple lead action level exceedances (at least 3 action level exceedances in a 5-year period) must conduct additional public outreach activities and make filters available. Water systems must submit a filter distribution plan to the State within 60 days of the second action level exceedance, and the State will have 60 days to review it. The State has discretion to allow the system to discontinue outreach activities and filter provision earlier if it completes actions to reduce lead levels.

- Water systems must offer to sample the tap for lead for any consumer with a lead, GRR, or unknown service line who requests it.

Baseline Service Line Inventory

- An updated inventory, referred to as the “baseline inventory”, must include the material of connectors in addition to the service line materials, regardless of ownership status.
- The LCRI defines a connector as a short segment of piping not exceeding three feet that can be bent and is used for connections between service piping, typically connecting the service line to the main.
- Baseline inventories are due on the LCRI compliance date of November 1, 2027.
  - Systems must respond to customer inquiries on incorrect material categorizations within 60 days.
  - Systems must identify all unknown service lines by the applicable mandatory replacement deadline.
  - Must be publicly accessible
    - Available online for systems serving greater than 50,000 people
  - All unknowns must be identified by 2037



Statistical Methods and Predictive Modeling

Guidance Document

Initial Service Line Inventory

Lead or GRR Identified

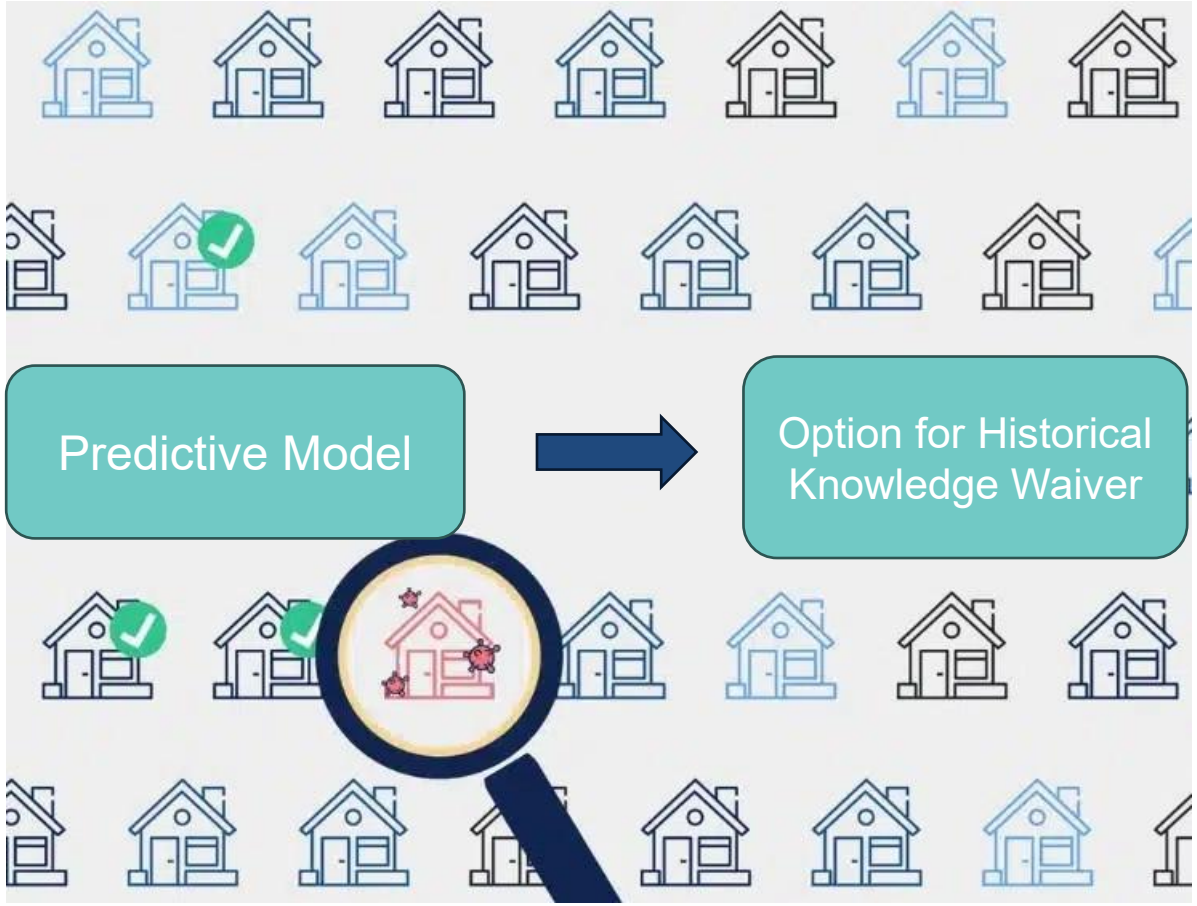
Yes

No

Statistical Method

Predictive Model

Option for Historical Knowledge Waiver



Historical Waiver

Going through the process

- Historical records review
- Identify number of service lines to be physically verified
- Randomly select service lines of physical verification
- Conduct physical verifications
- Evaluate results of verifications
- Predict service line materials at other locations

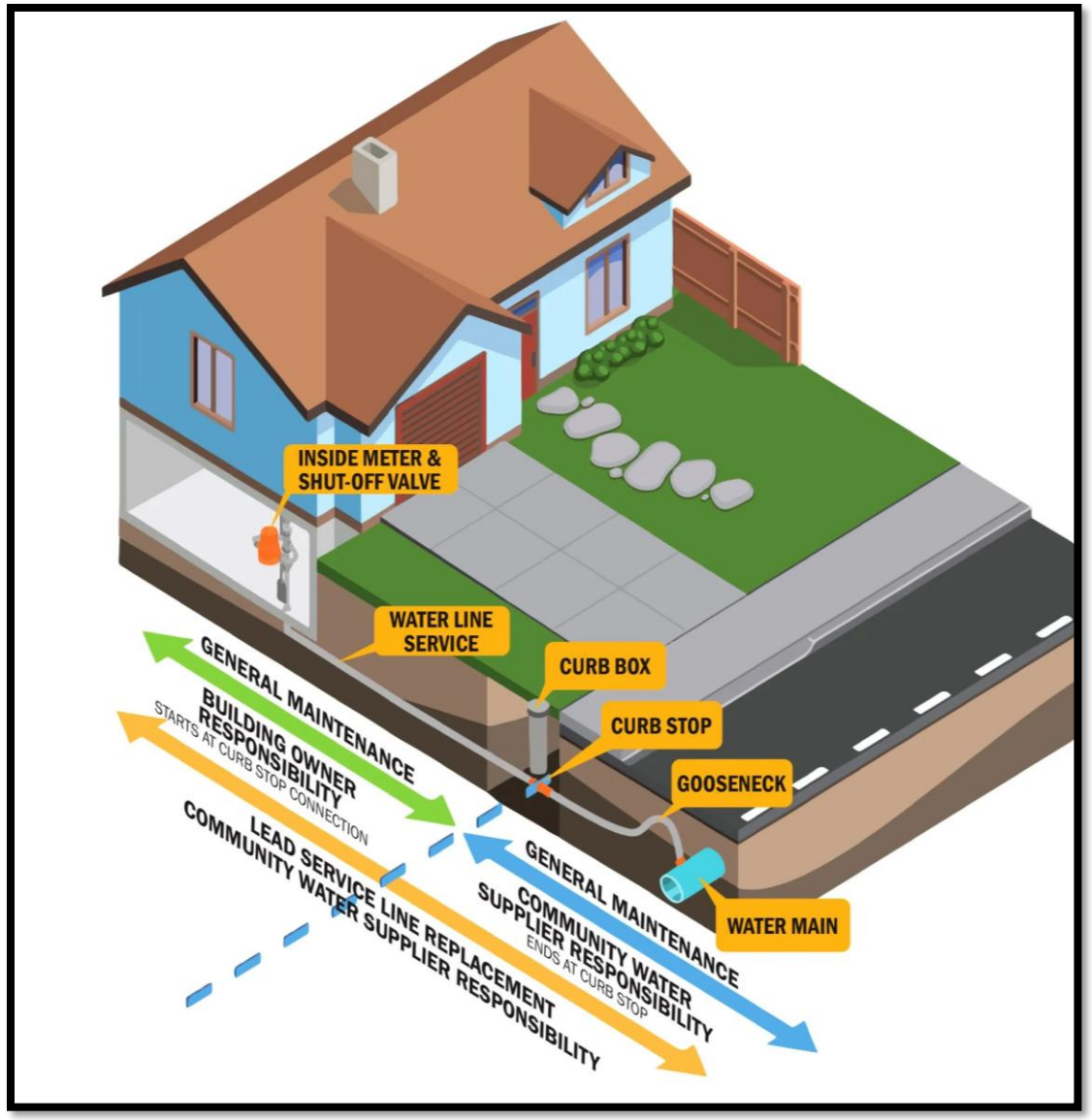
Number of "Unknown" Service Lines*	Number to Physically Verify
Fewer than 1,500	20% of "unknown" lines
1,500	306
1,600	310
1,700	314
1,800	317
1,900	320
2,000	322
2,200	327
2,400	331
2,600	335
2,800	338
3,000	341
3,500	346
4,000	351
4,500	354
5,000	357
6,000	361
7,000	364
8,000	367
9,000	368
10,000	370
15,000	375
20,000	377
30,000	379
40,000	381
60,000	382
90,000	383
225,000 or more	384

Lead Service Line Replacement Plans

- Systems with lead, GRR, or unknown material service lines must develop a replacement plan by the LCRI compliance date of November 1, 2027. Required elements of the replacement plan include:
  - Publicly accessible inventory (available online for systems serving >50,000 persons).
  - The publicly available inventory must have locational identifier for each lead/GRR service line.
  - Strategy to inform customers and consumers about the plan and replacement program.
  - Identify legal requirements or water tariff agreement provisions that affect a system's ability to gain access for full service line replacement.
  - Annually the plan must be revised with new/updated information and be submitted to the State.

- Replacement plan must include additional elements if the system has one or more lead-lined galvanized service lines or if the system is eligible for a deferred deadline.

Lead Service Line Replacement Plans



- Systems required to annually replace more than 39 service lines per 1,000 connections are eligible for deferred deadlines longer than 10 years.
- States required to shorten deadline for systems where a shorter deadline is feasible.
- Where property owner consent is required to access the service line, systems must make a “reasonable effort” (at least 4 attempts) to engage property owners.
- Partial replacements are prohibited except for:
  - Emergency repairs
  - Infrastructure projects that impact service lines where the system does not have control
- Systems conducting partial service line replacement, must make a “reasonable effort” to engage property owners about full-service line replacements and offer to replace the remaining portion of the service line not under their control within 45 days if replaced in coordination with an emergency repair.

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Lead Service Line Replacement Plans

Service Line Replacement Related Outreach

- Provide annual notification to customers and all persons served by the water system at the service connection with a lead, GRR, or unknown material service line.

- Provide notice and educational materials during water-related work that could disturb lead, GRR, or unknown service lines, including disturbances due to inventorying efforts, to consumers within 24 hours or before the service line is returned to service, and to customers within 30 days.

- Provide filters to consumers for disturbances to a lead, GRR, or unknown material service lines caused by replacement of an inline water meter, water meter setter, connector, or water main.

- If CWS does not meet the mandatory replacement rate they must conduct additional public outreach activities to encourage customers with lead, GRR, and unknown service lines to participate in the service line replacement program.

School and Childcare Facility Sampling

- All CWSs must make a list of the schools and licensed childcare facilities they serve and submit to the State by November 1, 2027.
  - Excludes schools and licensed childcare facilities constructed or that had full plumbing replacement on or after January 1, 2014 and are not served by a lead, GRR, or unknown material service line.

- All CWSs must conduct annual public education in the schools and childcare facilities on the list.



School and Childcare Facility Sampling

- All CWSs must sample in all the elementary schools and licensed childcare facilities they serve within the first five-year testing cycle and sample secondary schools on request. Thereafter, CWSs must sample the schools and childcare facilities they serve on request.
- Includes sampling waivers for alterative State and local sampling programs that meet specific conditions.
- Includes waivers for CWSs to sample in schools and licensed childcare facilities they serve during the first five-year testing cycle if the facility has been sampled between January 1, 2021, and November 1, 2027.

Key Compliance Date Items - November 1, 2027

- Baseline Service Line Inventory
- Lead Service Line Replacement Plan
- Updated Lead and Copper Sampling Plan
- List of Schools and Childcare Facilities for Community Systems
- Compliance with Lowered Lead Action Level (0.010 mg/L)
- Start Distribution System and Site Assessment (DSSA)

What's Due Annually?

January 30th

- Update

- Service Line Inventory
- Service Line Replacement Plan
- Annual replacement rate report (counts and addresses)

- Certify

- Lead connector replacements
- Notification and mitigation for service line replacements
- Outreach activities (if replacement rate is not met)
- Disturbance notifications and filter provisions
- School/child care facility outreach and sampling
- Distribution System and Site Assessment info sent to health agencies
- Customer inspection offers for disputed inventory categorization
- Public education and outreach

-Other

- Filter distribution and outreach for systems with multiple lead action level exceedances

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Questions?



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Thank you!



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